FIG. 1

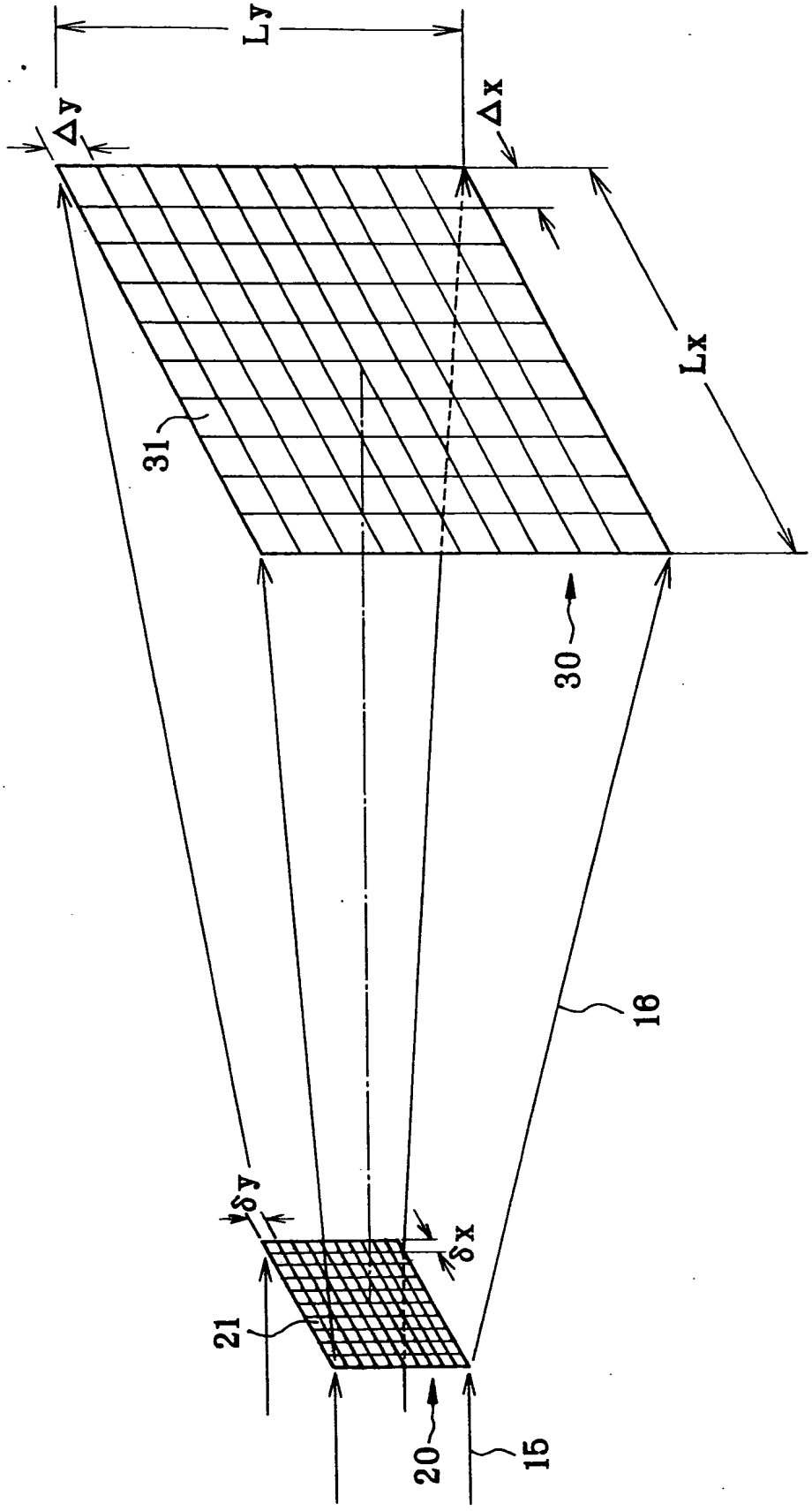

FIG. 2

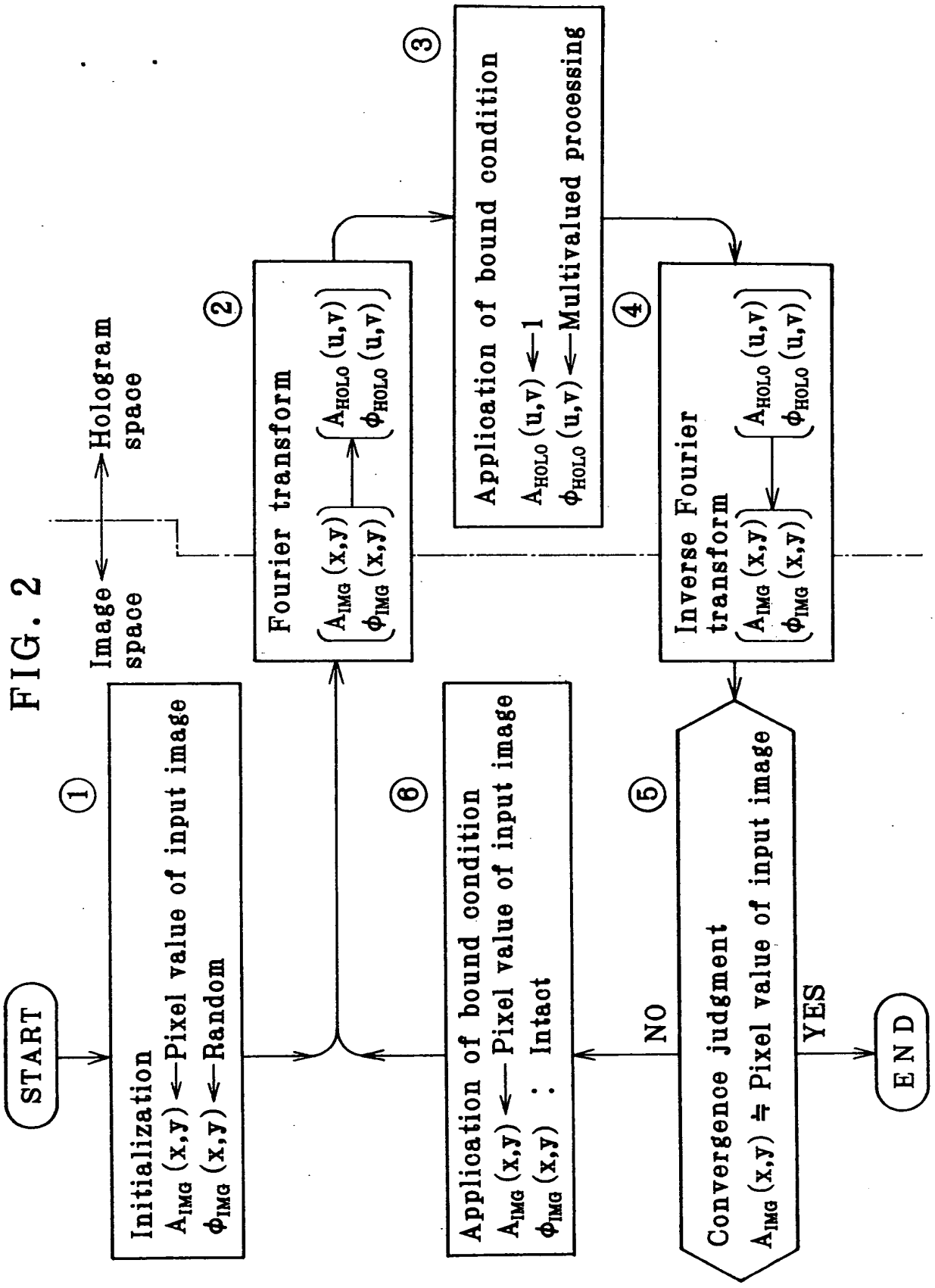
START
① Initialization
$A_{IMG}(x,y) \leftarrow$ Pixel value of input image
$\phi_{IMG}(x,y) \leftarrow$ Random
Image space
Hologram space
② Fourier transform
$A_{IMG}(x,y)$, $\phi_{IMG}(x,y)$ → $A_{HOLO}(u,v)$, $\phi_{HOLO}(u,v)$
③ Application of bound condition
$A_{HOLO}(u,v) \leftarrow 1$
$\phi_{HOLO}(u,v) \leftarrow$ Multivalued processing
④ Inverse Fourier transform
$A_{HOLO}(u,v)$, $\phi_{HOLO}(u,v)$ → $A_{IMG}(x,y)$, $\phi_{IMG}(x,y)$
⑤ Convergence judgment
$A_{IMG}(x,y) \fallingdotseq$ Pixel value of input image
YES
END
NO
⑥ Application of bound condition
$A_{IMG}(x,y) \leftarrow$ Pixel value of input image
$\phi_{IMG}(x,y)$: Intact

FIG. 3

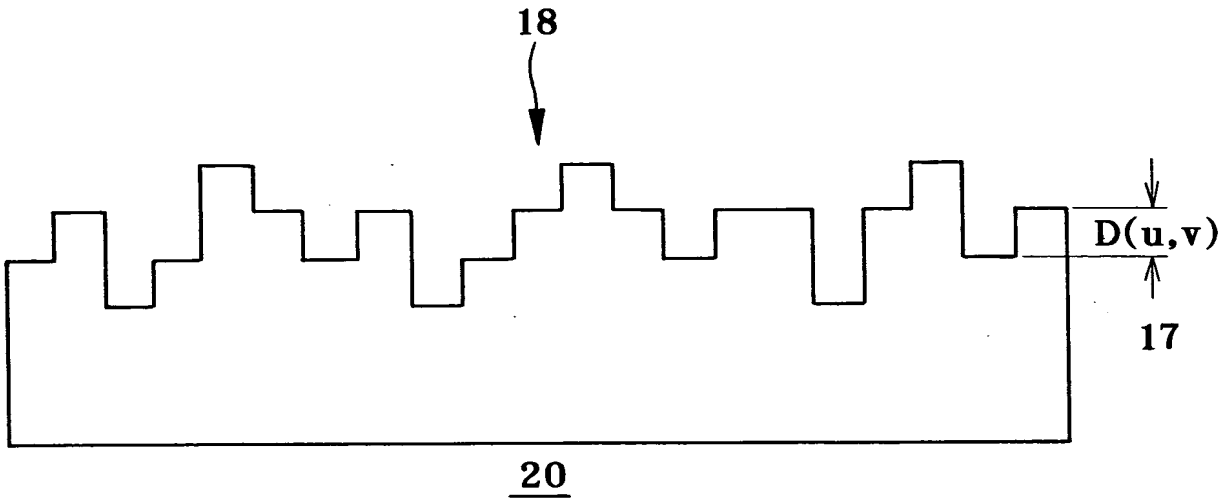

FIG. 4(a)

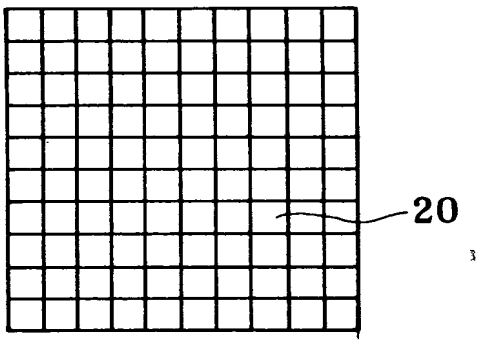

FIG. 4(b)

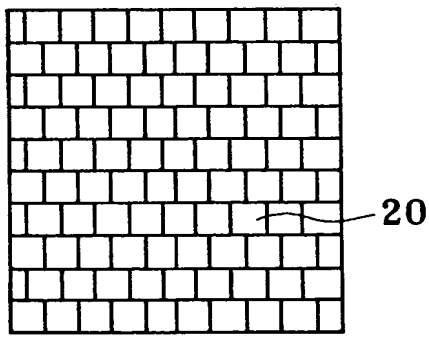

FIG. 5(c)

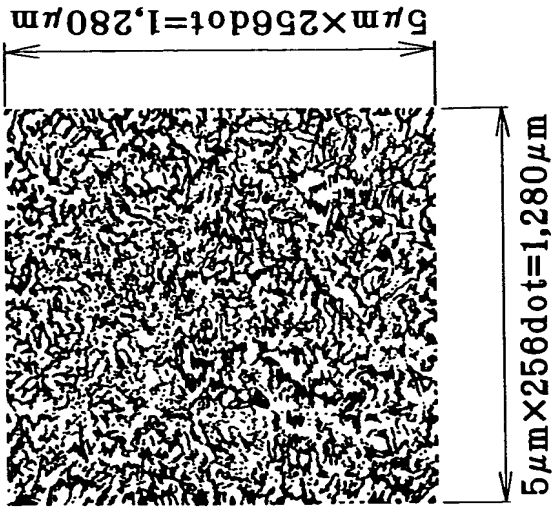

FIG. 5(b)

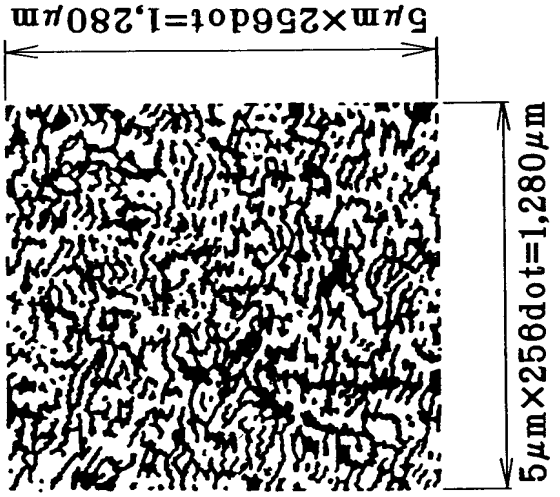

FIG. 5(a)

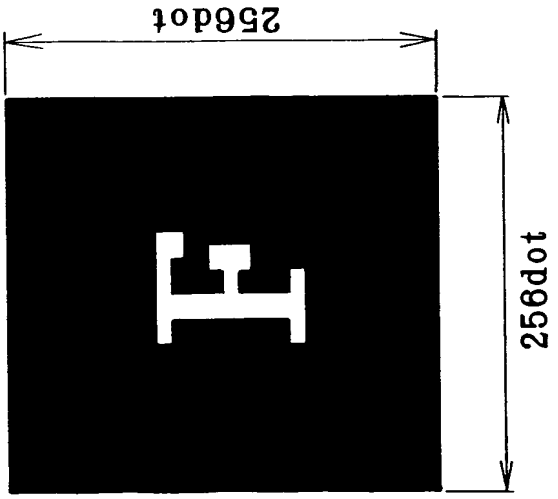

FIG. 6

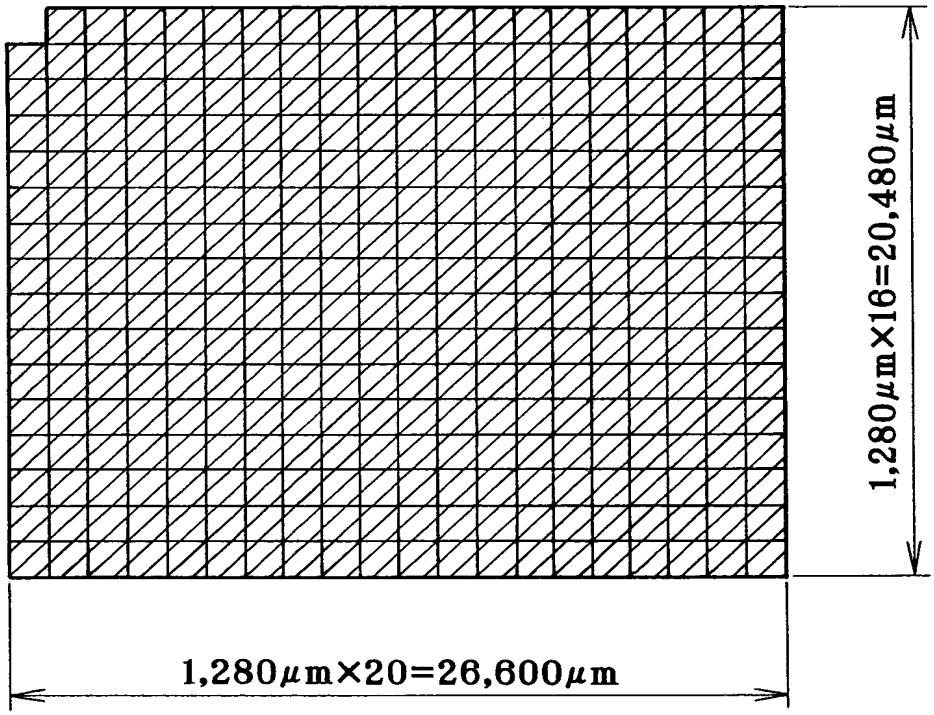

FIG. 7

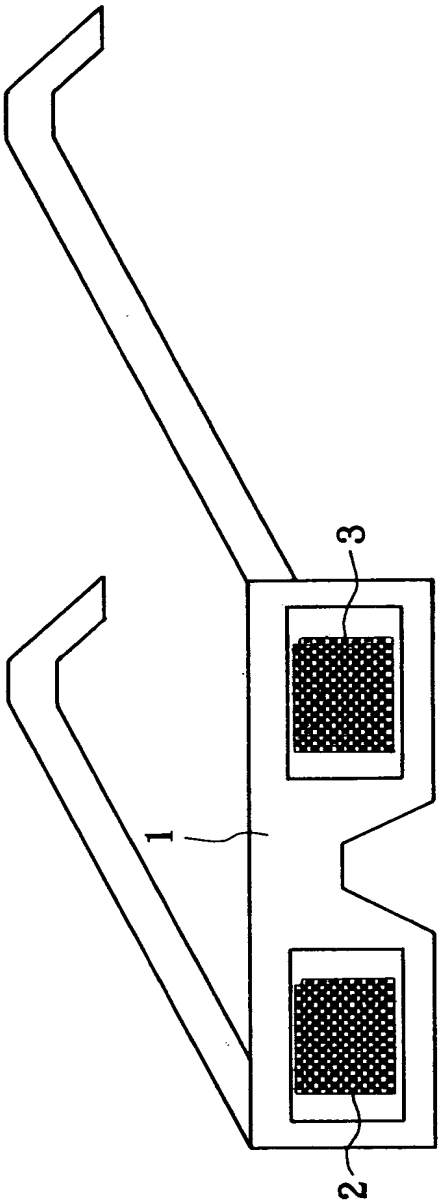

FIG. 8(a)

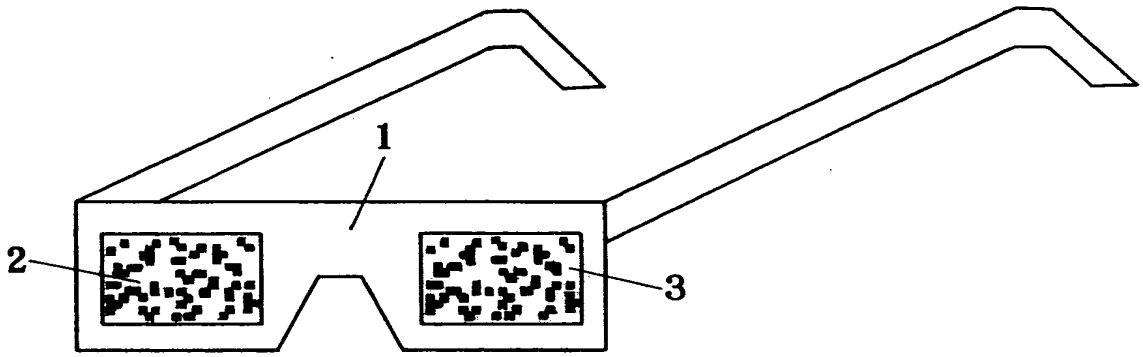

FIG. 8(b)

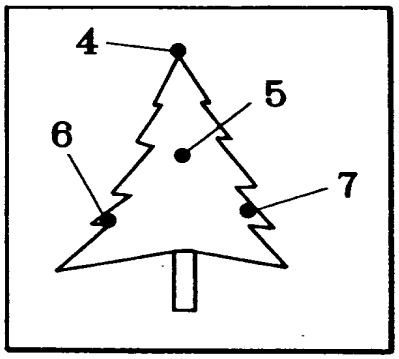
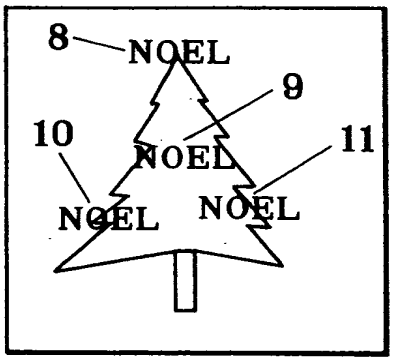
FIG. 8(c)